

Favorable action is respectfully solicited.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this amendment is required, applicant requests that this be considered a petition therefore. Please charge the required petition fee to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fee or credit any excess to Deposit Account No. 14-1263.

Respectfully submitted,

NORRIS, McLAUGHLIN & MARCUS, P.A.

By: 

William C. Gerstenzang
Reg. No. 27,552

220 East 42nd Street - 30th Floor
New York, New York 10017
(212) 808-0700

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Norris McLaughlin & Marcus, P.A.

By: 

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**MARKED-UP COPY OF AMENDED CLAIM,
SHOWING CHANGES RELATIVE TO PREVIOUS VERSION**

Claim 1 (amended). Process for producing elastane fibres by the dry spinning process or the wet spinning process using spinning solutions of elastane recycling material, optionally with the addition of fresh elastane solution, [characterised in that] wherein

- a) the waste obtained from elastane [material, in particular from elastane] fibres, is cut up[, in particular] to a cut length of at least 0.1 mm, [preferably to a cut length of at least 1 mm, particularly preferably to a cut length of 2 to 10 mm, most preferably to a cut length of 3 to 5 mm,]
- b) the cut elastane [material] fibers and 0.1 to 2 wt.%, based on the content of solid elastane, of a secondary aliphatic amine are introduced into the spinning solvent,
- c) the mixture of cut elastane [material] fibers, spinning solvent and secondary aliphatic amine is heated at a temperature of 60°C to 150°C, with homogenisation,
- d) the resulting homogeneous elastane spinning solution is prefiltered,
- e) optionally with the addition of fresh elastane solution, the elastane spinning solution is mixed at 70°C to 140°C with a fresh elastane solution, [preferably having the same solids concentration,] in any mixing ratio and heating is continued,

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- f) the resulting spinning solution is cooled to a temperature of at not more than 70°C, [preferably from 50°C to 70°C,] and filtered once more,
- g) the finished spinning solution is optionally remixed, [for example, by stirring, degassed] and subsequently spun into elastane fibres by the dry spinning process or the wet spinning process.

Claim 2 (amended). Process according to claim 1, [characterised in that] wherein the elastane waste [consists of] comprises both elastanes based on polyether and elastanes based on polyester, or [of] wastes of mixed polyether- and polyester-containing elastanes in any mixing ratio.

Claim 3 (amended). Process according to claim 1 [or 2, characterised in that] wherein the secondary aliphatic amine used is diethylamine (DEA), in a quantity [preferably] of 0.3 to 1 wt.%, [in particular preferably of 0.5 to 0.8 wt.%,] based on solid elastane.

Claim 4 (amended). Process according to [claims 1 to 3, characterised in that] Claim 1, wherein the concentration of the finished spinning solution in step h) is from 22 to 45 wt.% [, preferably from 30 to 40 wt.%].

Claim 5 (amended). Process according to [claims 1 to 4, characterised in that] Claim 1, wherein dimethylacetamide is used as the spinning solvent.

Claim 6 (amended). Process according to [claims 1 to 5, characterised in that] Claim 1, wherein the elastane spinning solution is mixed with a fresh elastane solution in step f) for a period of 5 to 60 minutes.

Claim 7 (amended). Process according to [claims 1 to 6, characterised in that] Claim 1, wherein the total mixing time in steps b) and c) together is at least 10 minutes[, preferably from 60 to 150 minutes, particularly preferably 90 to 120 minutes].

Claim 8 (amended). Process according to [claims 1 to 7, characterised in that] Claim 1, wherein the solution temperature in step c) is from 80°C to 120°C.

Claim 9 (amended). Process according to [claims 1 to 8, characterised in that] Claim 1, wherein in the case where a mixture of waste elastane solution and fresh elastane solution is used, the required addition of secondary aliphatic amine[, in particular of diethylamine,] to the fresh elastane solution is carried out not in step b) but in step f) and in the form of a stock batch of secondary aliphatic amine and fresh elastane solution.

Claim 10 (amended). Process according to [claims 1 to 9, characterised in that] Claim 1, wherein the recycling spinning solution and the fresh solution are ~~preferably mixed together in a static mixer, [preferably] at 70°C to 140°C[, in particular at 100°C to 120°C,]~~ for a period of 5 to 30 minutes and the spinning solution is subsequently cooled to 50°C to 70°C.

Claim 11 (amended). Process according to [claims 1 to 10, characterised in that] Claim 1, wherein the solids content of the recycling spinning solution in proportion to the solids concentration of the total spinning solution comprising recycling spinning solution and fresh elastane solution is at least 10 wt.% [, preferably at least 20 wt.%].

Claim 12 (amended). Process according to [claims 1 to 11, characterised in that] Claim 1, wherein the spinning of the spinning solutions by the wet spinning process is effected from spinnerets having a nozzle hole diameter of 0.10 to 0.3 mm[, preferably of 0.1 to 0.2 mm].

Claim 13 (amended). Process according to [claims 1 to 12, characterised in that] Claim 1, wherein the elastane [material] fibers in step a) is introduced in portions[, in particular via a metering/weighing device, preferably at a rhythm of 1 to 10 kg/minute, particularly preferably 3 to 5 kg/minute,] into the vortex created by an agitated disperser in the previously prepared spinning solvent.

Claim 14 (amended). Elastane fibres obtained from a process according to Claim 1 [one of claims 1 to 13, in particular] with a titre of up to 10,000 dtex, [characterised in that their] and fibre strengths [is] of 0.5 to 0.95 cN/dtex[, preferably 0.7 to 0.9 cN/dtex,] and [the] elongation at tear [is] of 500 to 750%[, preferably 550 to 700%].

Claim 15 (amended). Device for carrying out the process [according to one of claims 1 to 13, consisting] of Claim 1, comprising at least [of a] one heatable

mixing tank [1] with an inlet [2, 6] for solid material, a mixer [3] and a dispersing unit [4, 5, of], a mixing zone [7] with static mixing elements, connected downstream of the mixing tank [1, of], a cooling zone [11] with mixing elements and [of] a filtering unit [12] for subsequently filtering the prepared elastane spinning solution.

Claim 16 (amended). Device according to claim 15, [characterised in that] wherein the dispersing unit [4, 5,] consists of at least one[, in particular two,] agitated disperser[s].

Claim 17 (amended). Device according to claim 16, [characterised in that the] at least one agitated disperser[(s) 4 is/are] is equipped with screw-type segmented appliances [5].

Claim 18 (amended). Device according to claim 16, [characterised in that] wherein the at least one agitated disperser[(s) 4 is/are] is equipped with screw-type segmented appliances [5] selected from the group consisting of suction cutters, webbed rings, kneading spirals and multiple current appliances.

Claim 19 (amended). Device according to [one of claims 14 to 17, characterised in that] Claim 15, wherein the mixer [3] is an anchor mixer and the mixing tank [1] is provided with an additional cleaning device for the internal fittings of the mixer [3].